

15-1957-3-2628

Cretaceous and Paleogene Rocks Along the Right Bank of the Iset'
 River in the Shadrinskiy Rayon

Detailed descriptions are given of the stratigraphy of the Cretaceous and Tertiary rocks, their mineralogical peculiarities, and their fossil content. The age of the rocks has been determined by comparing the fossils with those of neighboring regions (see Table).

System	Group and Series	Thickness, m	Lithology	Guide fossils
Quaternary		up to 16	Brown sandy clays, sands, clays	
	Oligocene	up to 34	Clays, beidellite, olive green and laminated, silty in lower part	

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PALEOGENE	up to 47	Diatomite, light gray	Diatoms: <u>Melosira</u> <u>sulcata</u> Grun., <u>Ste-</u> <u>phanopyxis grunowi</u> Gr. and St., <u>S. tur-</u> <u>ris</u> var. <u>intermedia</u> Grun., <u>Goscinodiscus</u> <u>(Coscinodiscus!)</u> <u>moelleri</u> Grun., <u>C.</u> <u>argus</u> Ehr., and others. Siliceous flagellates: <u>Dictyochea quadrata</u> Hanna, <u>D. navicula</u> var. <u>biapiculata</u> Lemm., and others.
	up to 62	Opaline muds, gray and dark gray, argillaceous in upper part. silt- stones, sands and sandstones, quartz- ose, argillaceous, local opaline ce- ment	

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	Paleo-cene	up to 42	Mudstones, beidel-litic, gray and dark gray	Foraminifers: <u>Globigerinella voluta</u> <u>White</u> , <u>Globigerina bulloides</u> d'Orb., <u>G. pseudobulloides</u> <u>Plummm.</u> <u>G. triloculinoïdes</u> Plummm., <u>Glo-mospira choroides</u> (Park and Jon.), <u>Trochammina</u> sp.
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Cretaceous and Paleogene Rocks Along the Right Bank of the Iset'
 River in the Shadrinskij Rayon

	Danian	up to 8	Marls, light gray, with layers of siderite	Foraminifers: <u>Clavu-</u> <u>lina parisiensis</u> <u>d'Orb.</u> , <u>Anomalina</u> <u>acuta Plum.</u> , <u>Sten-</u> <u>sioina caucasica</u> (Subb.).
	Maestrich- tian- Campanian	25-90	Marls, light gray, silty, with rare layers of siderite	Foraminifers: <u>Boli-</u> <u>vina decurrens Ehr.</u> , <u>B. incrassata Reuss</u> , <u>Bolivinoides decor-</u> <u>tus Jones</u> , <u>Orbignina</u> <u>sacheri Reuss</u> , <u>Cibi-</u> <u>cides gankinoensis</u> <u>Nezk.</u> , <u>Nonionella</u> <u>kalinina Balach</u> , <u>Gaudryina</u> , <u>stephen-</u> <u>ioni Cushman</u> .

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Cretaceous and Paleogene Rocks Along the Right Bank of the Iset,
River in the Shadrinskiy Rayon

<u>CRETACEOUS</u>	Santonian	24-44	Sandstones with layers of sand, Mudstones, montmorillonitic-beidellite, greenish gray. Opaline muds, gray and dark gray, locally silty	Foraminifers: <u>Spiro</u> <u>pectammina kelleri</u> <u>Dain.</u> , <u>Haplophrag</u> - <u>moides glamerati</u> - <u>formis Zasp.</u> , <u>H.</u> <u>champani Moroz.</u> , <u>Reaphax ex gr. gut</u> - <u>tifer Brady.</u>
	Turonian	38-40	Mudstones, hydromicaeous-beidellite, greenish-gray, sandstones with cobbles and phosphatic concretions in lower part	Foraminifers: <u>Gau</u> <u>dryipa filiformis</u> <u>Bert.</u> , <u>Ammataculites</u> <u>ex gr. agglutinans</u> <u>d'Orb.</u> , <u>Haplophrag</u> - <u>moides aff. nonioni</u> - <u>noides (Reuss)</u> , <u>Reo</u> - <u>pax sp.</u>

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15-1957-3-2628

Cretaceous and Paleogene Rocks Along the Right Bank of the Iset'
River in the Shadrinskiy Rayon .

	Cenomanian-Albian?	up to 28	Siltstones, feld-spathic-quartzose, argillaceous with layers of siderite	
↓	Lower Cretaceous	up to 23	Clays, kaolinitic, variegated, with plant remains	
	Paleozoic		Metamorphosed shales	

Card 7/7

V. A. L.

PAPULOV, G.N.

Regarding I.V.Derbikov and E.I.Ben'ko's article "Tectogenesis of the Mesozoic in the West Siberian Plain." Geol. i geofiz. no.3:129-130 '60. (MIRA 13:9)

1. Gorno-geologicheskiy institut Ural'skogo filiala AN SSSR.
(West Siberian Plain--Geology, Structural)
(Derbikov, I.V.) (Ben'ko, E.I.)

PAPULOV, G. N.

Cand Geolog-Mineralog Sci

Dissertation: "Stratigraphy of Metamorphic Strata of the Kos'ma
River Basin (West Slope of the Middle Vrals)."

25 March 49

Inst of Geological Sciences, Acad Sci USSR

**SO Vecheryaya Moskva
Sum 71**

PAPULOV, G.N.

The lower Mesozoic in central Transural. Dokl. AN SSSR 97 no.1:
145-146 Jl '54. (MIRA 7:8)

1. Gorno-geologicheskiy institut Ural'skogo filiala Akademii
nauk SSSR. Predstavлено академиком D.V. Malivkinym.
(Ural Mountain region--Geology, Stratigraphic) (Geology,
Stratigraphic--Ural Mountain region)

PAPULOV, G.N.; UMOVA, L.A.

Cretaceous and Paleogene deposits of the right bank of the Iset' River within the boundaries of the Shadrinsk District. Trudy Gor.-geol.inst. no.24:178-186 '56. (MLRA 10:1)
(Iset' Valley--Geology, Stratigraphic)

KIPRIYANOVA, F.V.; PAPULOV, G.N.

Stratigraphic value of the species of *Gaudryina filiformis Berthelin*
for Cretaceous sediments on the eastern slope of the Urals and the
trans-Urals. Trudy Gor.geol.inst.UFAN SSSR no.6:111-116 '60.

(MIRA 14:10)

(Ural Mountain region--Geology, Stratigraphic)

S/076/60/034/04/02/042
B010/B009

AUTHORS: Tatevskiy, V. M., Papulov, Yu. G.

TITLE: The Relation Between the Formation Energy of Molecules From
Free Atoms and Their Structure. III

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 4, pp. 708-715

TEXT: This is a discussion of the subject mentioned in the title. By way of introduction, it is pointed out that the attempt by several research workers to represent the formation energy of the molecules as the sum total of the bond energies and the energy of the interaction between the bonds runs counter to the generally accepted concepts of the structure of molecules. On the other hand, the equations derived in this way are not at all new. G. V. Bykov's (Ref. 5) observations on a relation between the bond energy and the "electron charges" of the bonds represent the laws established experimentally in a less acceptable way than do the equations given by the present authors in previous papers. The concept of "electron charges of bonds" given in Ref. 5 is a formal one and remains without foundation. A relation between the number of "effective charges" of the bonds and the bond energies is incompatible with the concepts of quantum

Card 1/2

(V)

AUTHORS:

Tatevskiy, V. M., Papulov, Yu. G.S/076/60/034/03/001/038
B115/B016

TITLE:

Relationship Between the Formation Energy of a Molecule From Free Atoms and Its Structure. II. Energy of the Molecule as the Sum of Energies of the Interactions of Atoms in Pairs (Second Method)

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol 34, Nr 3, pp 489 - 504 (USSR)

TEXT: The fundamental concepts and equations for the relationship of the second method mentioned in the title and the fundamental approximate equation on the postulate of which the method is based are given. As a practical example, the formation energy of the alkane C_nH_{2n+2} molecule is dealt with. The authors point out that equation (1) has no concrete meaning as long as it is not completed by an arbitrarily selected classification of the atom interaction in pairs. It may be seen from the symmetry of the ethane molecule (Fig 1) that all interactions in pairs η_{HH} are exactly equivalent with respects to energy, which does not hold for all interaction in pairs $\{_{HH}\}$. The same also applies to the interactions in pairs of the molecule of the optically active trans-isomer of n-butane (Fig 2). Bernstein's (D) classification, the classification (E), as well as the classification (G) developed by the authors are described, and the equations covering the

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Relationship Between the Formation Energy of a Molecule From Free Atoms and Its Structure. II. Energy of the Molecule as the Sum of Energies of the Interactions of Atoms in Pairs (Second Method) S/076/60/034/03/001/038
B115/B016

relationship mentioned in the title are derived. The interactions for various checkerboard configurations of the alkane molecule (Fig 3) as well as the classification of interactions in pairs (D) according to Bernstein are given in table 1. The stable checkerboard configurations of the atoms surrounding the $C_2 - C_2$, $C_2 - C_3$, and $C_3 - C_3$ bonds (the indices 2 and 3 designating in each case a secondary or tertiary carbon atom) are illustrated (Fig 4). The type of the $C - C$ bonds and the position of six atoms surrounding the $C - C$ bond in checkerboard equilibrium configurations are shown in figure 5. Equation (25) corresponds to Bernstein's classification and includes a superfluous constant. The mathematical equations used to calculate the coefficients of this equation by means of the number of different bonds in the alkanes are given in the paper. Classification (E) is defined with additional conditions, and the corresponding equations are derived. Classification (G) of the interactions of atoms in pairs developed by the author, which is universally applied at present, is derived, and a corresponding equation for the formation energy of the alkane, which is equivalent to the equation given in the first method, is obtained. This classification

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Relationship Between the Formation Energy of a Molecule From Free Atoms and Its Structure. II. Energy of the Molecule as the Sum of Energies of the Interactions of Atoms in Pairs (Second Method) S/076/60/034/03/001/038 B115/B016

is reproduced in table 2. From a comparison between the first and the second method it may be seen that, if a corresponding classification is used, each equation of the second method is mathematically fully equivalent to any equation of the first method with a corresponding classification of the bonds. A relationship can be established between the energy values of different bonds in the first calculation method and the energy values of different atom interactions in the second method. There are 5 figures, 2 tables, and 2 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova ✓
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: February 16, 1959

Card 3/3

PAPULOV, Yu.G.; TATEVSKIY, V.M.

Potential barriers of internal rotation in alkanes. Zhur.
fiz. khim. 35 no.7:1586-1592 J1 '61. (MIRA 14:7)

1. Moskovskiy gosudarstvennyy universitet im.
(Ethane—Molecular rotation)

5(4),24(5),5(3)

AUTHORS: Tatevskiy, V. M., Papulov, Yu. G. SOV/20-126-4-37/62

TITLE: Quantum-mechanical Foundation of a Formula for the Energy of
Alkane Formation (Kvantovomekhanicheskoye obosnovaniye for-
muly dlya energii obrazovaniya alkanov)PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4, pp 823-826
(USSR)ABSTRACT: For alkanes C_nH_{2n+2} , which only contain bonds CC and CH the
general formula may be derived for the energy of formation
from the atoms as follows:

$$E_{C_nH_{2n+2}} = \sum_{CC} R_{CC} + \sum_{CH} R_{CH} + \sum_{CC,CC} R_{CC,CC} + \sum_{CC,CH} R_{CC,CH} + \\ + \sum_{CH,CH} R_{CH,CH} \quad (10).$$

The signs CC and CH in the first two sums denote the summing up of all bonds CC and CH, respectively. The signs CC,CC; CC,CH; CH,CH in the last three sums denote the summing up of all bond pairs CC and CC, CC and CH, CH and CH, respectively. The values $R_{CC,CC}$ may be divided as follows:

Card 1/4 1) Quantities $R'_{CC,CC}$, which refer to two CC-bonds possessing

Quantum-mechanical Foundation of a Formula for the SOV/20-126-4-37/62
Energy of Alkane Formation

a common C-atom; 2) Quantities $R''_{CC,CC}$, which refer to two CC-bonds separated by a CC-bond. $R'_{CC,CH}$ and $R''_{CH,CH}$ may also be divided in an analogous way:

$$\sum_{CC,CC} R_{CC,CC} = \sum_{CC,CC} R'_{CC,CC} + \sum_{CC,CC} R''_{CC,CC} + \dots$$

$$\sum_{CC,CH} R_{CC,CH} = \sum_{CC,CH} R'_{CC,CH} + \sum_{CC,CH} R''_{CC,CH} + \dots \quad (11)$$

$$\sum_{CH,CH} R_{CH,CH} = \sum_{CH,CH} R'_{CH,CH} + \sum_{CH,CH} R''_{CH,CH} + \dots$$

As a rule, the remaining terms of these equations (11) are smaller and may be neglected. On account of quantum-mechanical considerations the authors finally derived the following equation for the energy of formation $E_{C_nH_{2n+2}}$ of alkanes from

the atoms: $E_{C_nH_{2n+2}} = \sum_{i,j=1, i \leq j}^4 n_{ij} p_{ij} \quad (16)$. The derivation of this equation is given and discussed in the present paper.

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Quantum-mechanical Foundation of a Formula for the
Energy of Alkane Formation

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n_{ij} is the number of bonds C_i-C_j in the alkane; B_{ij} is a constant and has the following value:

$$B_{ij} = R_{CC} + \left(\frac{4-i}{i} + \frac{4-j}{j} \right) R_{CH} + \left(\frac{i-1}{2} + \frac{j-1}{2} \right) R_{CC,CC}^t + \left[(4-i) + (4-j) \right] R_{CC,CH}^t + \\ + \left[\left(\frac{3-i}{2} \right) \left(\frac{4-i}{i} \right) + \left(\frac{3-j}{2} \right) \left(\frac{4-j}{j} \right) \right] R_{CH,CH}^t + \sum_{i,j=1, i \neq j}^4 n_{ij} (i-1)(j-1) \cdot \\ \cdot \left[R_{CC,CC}^t + 2R_{CC,CG}^g \right] + \frac{1}{3} \sum_{i,j=1, i \neq j}^4 n_{ij} \left[(i-1)(4-j) + (j-1)(4-i) \right] \cdot \\ \cdot \left[R_{CC,CH}^t + 2R_{CH,CH}^g \right] + \frac{1}{3} \sum_{i,j=1, i \neq j}^4 n_{ij} (4-i)(4-j) \left[R_{CH,CH}^t + 2R_{CH,CG}^g \right] + \\ f_{ij} \quad (17), \text{ where the quantities } f_{ij}, \text{ with the exception} \\ \text{of } f_{22}, f_{23}, \text{ and } f_{33}, \text{ are equal to zero.} \\ f_{22} = (\alpha_{22}^{-1/3}) \left[R_{CC,CC}^t - R_{CC,CC}^g - 2R_{CC,CH}^t + 2R_{CC,CH}^g + R_{CH,CH}^t - R_{CH,CH}^g \right] \\ f_{23} = -(\alpha_{23}^{-1/3}) \left[R_{CC,CC}^t - R_{CC,CC}^g - 2R_{CC,CH}^t + 2R_{CC,CH}^g + R_{CH,CH}^t - R_{CH,CH}^g \right] (-8)$$

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Quantum-mechanical Foundation of a Formula for the
Energy of Alkane Formation

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$$f_{33} = (\alpha_{33} - 1/3) \left[R_{CC,CC}^t - R_{CC,CC}^g - 2R_{CC,CH}^t + 2R_{CC,CH}^g + R_{CH,CH}^t - R_{CH,CH}^g \right]$$

Equation (16) is thus analogous to an equation already earlier derived by the authors (Ref 2), in which case they proceeded from the conceptions of the types and forms of bonds CC and CH; the equation is as follows:

$$E_{C_nH_{2n+2}} = \sum_{i,j=1, i < j}^4 n_{ij} A_{ij} \quad (19). \text{ A certain connection between the constants } B_{ij} \text{ was determined. These problems will be dealt with separately. There are 2 references, 1 of which is Soviet.}$$

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: February 14, 1959, by V. I. Spitsyn, Academician

SUBMITTED: February 10, 1959
Card 4/4

PAPULOV, Yu.G.; TATEVSKIY, V.M.

Calculation of the interactions of paired atoms spaced over
three atoms in $A_2B_2n^2$ compounds with a tetrahedral valence
system. Zhur. fiz. khim. 36 no.1:189-206 Ja '62. (MIRA 16:3)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova.
(Paraffins) (Heat of formation)

PAPULOV, Yu.G.

Relation of properties and reactivity of X-substituted methanes with
their structure. Zhur.strukt.khim. 4 no.4:617-621 Jl-Ag '63.
(MIRA 16:9)
(Methane) (Chemical structure) (Substitution (Chemistry))

PAPULOV, Yu.G.

Calculation of multiple interactions of atoms in molecules.
Zhur.strukt.khim. 4 no.3:462-464 My.-Je '63. (MIRA 16:6)
(Molecules) (Substitution (Chemistry))

PAPULOV, Yu.G.; TATEVSKIY, V.M.

Potential barriers of internal rotation and the differences
of energies of rotational isomers in X-substituted ethanes.
Vest. Mosk. un. Ser. 2: Khim. 18 no.3:5-9 My-Je '63.
(MIRA 16:6)

1. Kafedra fizicheskoy khimii Moskovskogo universiteta.
(Ethane—Molecular rotation)
(Isomerism)

8/189/63/000/002/002/010
A057/A126

AUTHOR: Papulov, Yu.G.

TITLE: On the energy of rupture of C-C bonds in X-substituted ethanes

PERIODICAL: Vestnik Moskovskogo universiteta, Seriya II, Khimiya, no. 2, 1963,
6 - 9

TEXT: Formulas are given for the calculation of the rupture energy of C-C bonds in X-substituted ethanes with the general formula $C_2H_6-pX_p$, where X = monovalent substituent (Cl, CH_3 , ...), and p = number of substituents X in the molecule (0, 1, 2, 3, ..., 6). If the formula is written $CH_3-lX_l - CH_3-l'X_l'$, where $l + l' = p$ ($l, l' = 0, 1, 2, 3$; $l < l'$) and the energy (heat of formation of free atoms) of the molecule is defined with $E_{ll'} = ECH_3-lX_l - CH_3-l'X_l'$, inserting the energies of paired interaction of direct-bond C-C atoms, C-H, respectively C-X atoms and the atoms in distance of one and two C atoms, assuming the energy of the molecule as sum of the paired interactions of the same value in all molecules, a corresponding equation can be obtained, which can be written simplified to:

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On the energy of rupture of C-C bonds in ...

$$E_{11'} = \lambda_0 + (1 + 1') \lambda_1 + (1^2 + 1'2) \lambda_2 + (11') \lambda_3$$

This formula was used by the author for the calculation of the energy of the molecule of X-substituted ethanes in the form of a linear combination of the four constants λ_0 , λ_1 , λ_2 , λ_3 . Corresponding two formulas were deduced for the calculation of the energy of the radicals CH₃-X₁ and CH₃-1'X₁', i.e., X-substituted methanes. These formulas represent a linear combination of the constants a_0 , a_1 , and a_2 . The difference of the sum of the latter two formulas and (2) is finally deduced to

$$D_{11'} = d_0 + (1 + 1') d_1 + (11') d_3$$

i.e., the equation for the energy of rupture of C-C bonds in X-substitutes of the ethane with three constants d_0 , d_1 , and d_3 . The method presented is an extension of the presentation of the energy of paired interactions of atoms developed in earlier papers of the author and might be applied to all compounds with a tetrahedral system of valencies and the general form A₂B₆-p-q-r-...-t^p_q^rY_tZ_r...W_t, where A = C, Si, Ge, ..., and B, X, Y, Z, ... W = H, Cl, CH₃, ...

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A057/A126

(2)

On the energy of rupture of C-C bonds in ...

S/189/63/000/002/002/010
A057/A126

ASSOCIATION: Kafedra fizicheskoy khimii (Department of Physical Chemistry)

SUBMITTED: December 14, 1961

W/CQ

Card 3/3

PAPULOV, Yu.G.

C=C bond breaking energies in X-substituted ethane. Vest.Mosk.
un.Ser.2:Khim. 18 no.2;6-9 Mr-Ap '69. (MIRA 16:5)

1. Kafedra fizicheskoy khimii Moskovskogo universiteta.
(Ethane) (Chemical bonds)

TATEVSKIY, V.M.; PAPULOV, Yu.G.

Relation between the energy of formation of a molecule from free atoms and its structure. Zhur. fiz. khim. 34 no.2:241-258
F '60.
(MIRA 14:7)

1. Maskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Molecules) (Atoms) (Chemical bonds)

TATEVSKIY, V.M.; PAPULOV, Yu.G.

Relation between the structure of a molecule and its energy of
formation from free atoms. Zhur. fiz. khim. 34 no.4:708-715 Ap '60.
(MIRA 14:5)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Molecular theory) (Force and energy)

PAPULOV, Yu.G.; TATEVSKIY, V.M. (Moscow)

Energies of formation and potential barriers of internal rotation
of X-substituted alkanes. Zhur.fiz.khim. 35 no.12:2695-2709 D
'61.
(MIRA 14:12)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Paraffins--Molecular rotation)

PAPULOV, Yu.G.; TATEVSKIY V.M.

Molecular orbital method and alkanes. Vest. Mosk. Un. Ser. 2: khim. 16
no. 6: 16-22 N-D '61. (MIRA 14:11)

1. Moskovskiy gosudarstvennyy universitet. Kafedra fizicheskoy
khimii.
(Paraffins) (Molecules)

PAPULOV, Yu.G.; TATEVSKIY, V.M.

Energy of formation of a molecule as the sum of the energies of paired atomic interactions. Vest. Mosk. un. Ser. 2: Khim. 15 no.5: 13-18 S-0 '60. (MIRA 13:11.)

1. Moskovskiy gosudarstvennyy universitet, kafedra fizicheskoy khimii.
(Molecules) (Heat of formation)

PAPULOV, Yu.G.; TATEVSKIY, V.M. (Moscow)

Paired interactions of atoms and the properties of
X-substituted ethane. Zhur.fiz.khim. 37 no.2:406-412 F '63.
(MIRA 16:5)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Ethane) (Substitution (Chemistry)) (Atoms)

PAPULOV, Yu.G.

Interaction of atom pairs and properties of X-substituted methane compounds and their radicals. Dokl. AN SSSR 143 no.6:1395-1398
Ap '62. (MIRA 15:4)

1. Predstavleno akademikom V.N.Kondrat'yevym.
(Methane) (Substitution (Chemistry)) (Chemical bonds)

TATEVSKIY, V.M.; PAPULOV, Yu.G.

Relation between the energy of formation of a molecule and its
structure. Part 2. Zhur. fiz. khim. 34 no.3:489-504 Mr '60.
(MIRA 13:11)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Chemical bonds) (Molecular theory)

PAPULOV, Yu.G.

Properties and structure of large molecules. Part 2. Zhur.fiz.khim.
39 no.7:1545-1551 Jl '65. (MIRA 18:8)

1. Kalininckiy nauchno-issledovatel'skiy institut sinteticheskogo
volokna.

PAPULOV, Yu.G.

Properties and structure of large molecules. Part 5. Zbir.
fiz. khim. 39 no.8:1848-1855 Ag '65. (MIRA 18:9)

l. Kalininskiy nauchno-issledovatel'skiy institut sinteticheskogo
volokna.

PAPULOVA, I. N.

USSR/Chemistry - Chlorides
Chemistry - Nitrates

Apr 1947

"Topochemical Conversion of Sodium Chloride and Potassium Chlorides Into Nitrates," Prof D. A. Epshteyn, Dr Tech Sci; L. A. Chirkova, Candidate Chem Sci; I. N. Papulova, 5 pp

"Khim Prom" No 4

Describes results of studies on speed of interrelation of gaseous form and liquid form of nitrogen dioxide with solid chlorides, and studies which have been conducted on model apparatus. Data obtained for kinetic similarities, operated by chain reactions. No study of qualitative characteristics made.

PA 58T15

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PAPULCOVA, I. N.
D. A. EPSTEIN, Khiz. Prom 1947, No. 4, 5-9

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CIA-RDP86-00513R001239210006-7"

PAPUL'INA, I.N.

EPISHTEYN, D.A., professor, doktor tekhnicheskikh nauk; CHIRKOVA, L.A.,
kandidat khimicheskikh nauk; PAPUL'INA, I.N., kandidat khimiche-
skikh nauk

Topochemical conversion of sodium and potassium chlorides in
nitrates. (Interaction of solid chlorides with liquid or gaseous
nitrogen dioxide) Khim.prom.no.4:101-105 Ap'47. (MIRA 8:12)
(Potassium chloride) (Nitrogen oxides)

EYDEL'NANT, N.L.; RUBINA, S.I.; SMOLIANITSKIY, V.Z.; SEREBRYAKOVA, V.L.;
PLUNGIAN, L.V.; DASHKEVICH, V.S.; Prinimali uchastiye:
PESCHANSKAYA, R.Ya.; LEVINA, A.Yu.; GOL'BEREYKH, I.Ye.;
SHCHERBAKOVA, L.P.; PAPULOVA, P.A.

Activated kailin and its use in rubber compounding. Kauch.
i rez. 20 no.9:46-49 S '61. (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh
izdeliy, Vsesoyuznyy nauchno-issledovatel'skiy institut plenochnykh
materialov i iskusstvennoy kozhi i zavod "Sangigiyena".
(Kaolin)
(Rubber, Synthetic.)

PAPULOVA, Yu.G.

Preparation of cotton rollers by means of a dental drill. Stomatologija 40 no 12:88 Mr-Ap '61. (MIRA 14:5)

1. Iz Sochinskoy polikliniki No.1.
(STOMATOLOGY—EQUIPMENT AND SUPPLIES)

ACCESSION NR: AP4034915

S/0181/64/006/005/1369/1374

AUTHORS: Nitts, V. V.; Papulova, Z. G.; Sosnovskaya, I.; Sosnovskiy, Ye.

TITLE: Structure investigation by neutron diffraction on a fast pulse reactor

SOURCE: Fizika tverdogo tela, v. 6, no. 5, 1964, 1369-1374

TOPIC TAGS: neutron diffraction, crystal structure, fast pulse reactor, oxygen parameter, reactor IBR

ABSTRACT: The authors investigated the applicability of a fast pulse reactor IBR, as used at the Laboratoriya naytronnoy fiziki Ob"yedinennogo instituta yadernykh issledovaniy (Laboratory of Neutron Physics of the United Institute of Nuclear Studies) for structural studies of crystals. The average power of the instrument is 1 kv, and a beam of incident white light is employed. The energy spectrum of neutrons scattered at the incident angle was measured according to transit time. The technique gave high intensity and low background. Neutron diffraction spectra were obtained for powdered samples of Al, Zn, and ZnO. The results show that great precision may be obtained for structural analysis. By this method it was found that the oxygen parameter of ZnO is 0.374 (a refinement of the value previously

Card 1/2

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239210006-7

MASH, D.I.; PAPULOVSKIY, V.F.; CHIRINA, L.P.

Operation of a laser on a Xenon-krypton mixture. Opt. i spektr.
17 no.5:796-798 N '64.
(MIRA 17:12)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239210006-7"

43095-65 EWA(k)/FBD/EWG(r)/EWT(1)/ENT(m)/EPF(c)/EEG(k)-2/EPF(n)-2/EPR/EEC(t)/T/EWP(t)/
EEC(b)-2/EWP(k)/EWP(b)/EWA(m)-2/EWA(h) Pm-4/Pn-4/Pd-4/Pf-4/Pr-4/Ps-4/Peb/Pi-4/Pu-4/PI-4
SCTB/LJP(c) MG/JD UF/0051/65/018/005/0866/0869

ACCESSION NR: AP5012615

AUTHOR: Mash, D. I., Papulovskiy, V. F., Chirina, L. M.

TITLE: Experimental investigation of the beam divergence of a neon-helium laser

SOURCE: Optika i spektroskopiya, v. 18, no. 5, 1965, 866-869

TOPIC TAGS: laser, neon laser, helium laser, neon helium laser, laser beam divergence

ABSTRACT: The beam divergence angle was measured for various modes and mirror combinations. The results are compared with values calculated by formulas given by Boyd and Gordon (Bell System Techn. J., 40, 1961, 489) and Boyd and Kogelnik (Bell System Techn. J., 41, 1962, 1347). The angle of divergence in a confocal system comprising mirrors with a radius of curvature of 184 cm for the TEM₀₀ mode was calculated to be 2.2' after the introduction of a correction for the refraction within the quartz substrate (refractive index = 1.45), while the measured divergence was found to be 3'. The analogous figures for the TEM₀₀ mode in a nonconfocal system with a mirror radius of curvature of 2 m and distance between them of 3 m, were 2.65' (calculated) and 3.5' (measured). The measurement results for other modes in confocal and nonconfocal systems are given in a table. Further measurements were conducted with mirrors of slightly different curvature (1850 and 1855 mm) to establish

Card 1/3

I 48095-65

ACCESSION NR. AP5012615

O

ish the dependence of the multimode beam divergence on the distance between the mirrors. A sharp increase of divergence was observed at mirror distances close to the curvature radii of the mirrors. Different mode images at both ends of the resonator were obtained at a distance value between the curvature values of the mirrors. The mode images at mirror distances below the smaller and above the larger curvature were identical at both ends and displayed minima of the divergence angle at one or the other end of the resonator; at the mirror with larger curvature the minimum divergence appeared at a distance greater than its curvature, and at a distance smaller than the curvature at the opposite end. The nature of these minima remained obscure. In the case of a combination of a plane and a spherical mirror (2 m curvature radius) at opposite ends, a slowly decreasing divergence of a multiple beam was observed within the distance range from 90 to 150 cm. At the spherical mirror of a 5-mm tube, the divergence started at 10.5' and decreased to 0.5' at 140 cm. At the plane end, the divergences were 7.5' and 7.0', respectively. For the TEM₀₀ mode, the divergence started between 3 and 4' and showed a flat minimum at

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239210006-7

about 105 cm., and increased slowly to about 4' at 140 cm. Orig. art. has 4 figs.
4 wires and 5 formulas.

[FP]

ASSOCIATION: none

Card 2/3

L-48095-65

ACCESSION NR.: AF5012615

SUBMITTED: LOMar64

ENCL: 00

SUB CODE: NC

NO. PEF BOV: 000

OTHER: 002

ATTD PRESS: 4002

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239210006-7"

SL
Card 3/3

L_17602-65 EMG(j)/EWA(k)/PBD/EWT(1)/EWT(m)/EPF(o)/EEC(k)-2/EPM/EEC(t)/T/EWP(t)/
EEC(b)-2/EWP(k)/EWA(h)/EWP(c)/EWA(m)-2/EPF(n)-2 P1-4/P0-4/Pf-4/Pt-4/Pi-4/Peb/
P1-4/Pu-4/P1-4 IJP(c)/AFWL/SSD/AEDC(a)/ASD(a)-5/AETTR/RAEM(a)/ESD(gs)/ESD(t)
ACCESSION NR: AP404B758 WG/JG S/0051/54/017/005/0796/0798

AUTHORS: Mash, D. I.; Papulovskiy, V. F.; Chirina, L. P.

TITLE: Operation of a gas laser with a xenon-krypton mixture

SOURCE: Optika i spektroskopiya, v. 1', no. 5, 1964, 796-798

TOPIC TAGS: xenon, krypton, gas laser, laser material, laser output analysis

ABSTRACT: In view of the theoretical possibility of obtaining population inversion between certain of the 3d and 2p levels of xenon in a mixture of xenon and krypton, the authors experimentally obtained laser action in such a mixture at 12 wavelengths between 2.03 and 9 μ . For wavelengths up to 3.5 μ the setup used had external mirrors with radii of curvature of 2 meters which were placed 3 meters apart. The discharge tube with quartz windows set at the Brewster angle to the axis was 270 mm long and 12 mm inside diameter. A setup with

Card 1/3

The authors thank N. G. Basov for continuous interest and M. A. Vy*otskaya and A. A. Kuznetsov for daily help. Orig. art. has: 4 figures and 1 table.						
SUBMITTED: 13Feb64		ENCL: 01	SUB CODE: EC	OP		
NO REF SOV: 001		OTHER: 001	ATD PRESS: 3151			
Card 2/3						

I 17602-65
ACCESSION NR: AP4048758

ENCLOSURE: 01

Table 1. Xenon and krypton emission wavelengths

Wavelength	Transition	Optimal system press, Torr
Xenon		
2.0268	$3d_2 - 2p_1$	$1.4 \cdot 10^{-2}$
2.6518	$3d_2 - 2p_5$	$1.4 \cdot 10^{-3}$
3.1069	$3d_1 - 2p_6$	$1.3 \cdot 10^{-3}$
3.2748	$3d_3 - 2p_{10}$	$1.3 \cdot 10^{-2}$
3.3678	$3d^2 - 2p_7$	$1.3 \cdot 10^{-2}$
3.5080	$3d_4 - 2p_9$	$1.3 \cdot 10^{-2}$
3.9955	$3d_5 - 2p_{10}$	$1.9 \cdot 10^{-3}$
5.5753	$3d_4 - 2p_8$	$1.9 \cdot 10^{-3}$
9.0065	$3d_3 - 2p_8$	$1.9 \cdot 10^{-1}$
Krypton		
2.1165	$3d_3 - 2p_7$	$1.1 \cdot 10^{-2}$
2.1902	$3d_4 - 2p_6$	$1.2 \cdot 10^{-2}$
2.5234	$3d_5 - 2p_6$	$2.6 \cdot 10^{-3}$

Card 3/3

MASH, D.I.; PAPULOVSKIY, V.F.; CHIRINA, L.P.

Experimental study of the divergence of the beam from a neon-helium
laser (wavelength $\lambda = 0.63\mu$). Opt. i spektr. 18 no.5:866-869 My
'65. (MIRA 18:10)

P. UNIN, Yu.G.

Case of perforation of an atherosclerotic aorta of the abdominal aorta into the duodenum. In surgery no. 1:1971 (1971)

1. Iz khirurgicheskogo otseleniya - Yu. G. Gorkina. S. A. T. oblastnoy bol'nitsy (glavnnyy chirurgicheskii vichislitel'nyy Shchenokonov).

PAPUNIN, Yu.G.

Immediate results of 51 resections of the stomach replacing
the resected segment with a small intestine. Khirurgia
no.3:34-40 '63. (MIRA 16:5)

1. Iz khirurgicheskogo otdeleniya (zav. K.G.Osokina) Kostromskoy
oblastnoy bol'nitsy (glavnnyy vrach--zasluzhennyy vrach RSFSR
M.V.Shchekunov).
(STOMACH--SURGERY) (INTESTINES--TRANSPLANTATION)

MINUSOV, Ye.B.; PAPUNYNOVA, L.V.

Dynamic characteristics of a reactor with organic-inorganic heat exchanger for the synthesis of alkyd resins. Mirov. mat. i ikh prim.
no.3:65-67 '63. (MIRA 16:9)
(Alkyd resins) (Paint industry—Equipment and supplies)

PAPUREANU, Victor

The amplitude differential single-channel analyser with improved resolution power. Studii cerc fiz 12 no.3:627-630 '61.

1. Institutul de fizica atomica, Bucuresti.

(Differential analyzers) (Nuclear spectra)

PAPUROV, A.

[How to carry out the collective farm plan] *Kak vypolnitsia*
perspektivnyi plan kolkhoza. Kishinev, 1956. 35 p. [in Moldavian]
(Moldavia--Collective farms) (MLRA 10:6)

PAPUROV, G.

"Profitable Conference." p. 3,
(ZDRAVEN FRONT, No. 51, Dec. 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

PAPUROV, G. D.

Aneurysm of the maxillary artery. Vest. otorin. no.2:101 '62.
(MIRA 15:2)

1. Iz Otorinolaringologicheskogo kabineta (zav. G. D. Papurov)
okruzhnoy bol'nitsy, T"rovishche, Bolgariya.

(ANEURYSMS)

ACCESSION NR: APL014252

S/0133/64/000/002/0149/0152

AUTHORS: Dontsov, P. M. (Candidate of technical sciences); Papush, A. G. (Candidate of technical sciences); Aristov, V. S. (Candidate of technical sciences); Malakhovskiy, L. G. (Engineer); Shcherbak, M. A. (Engineer); Dontsova, A. Ya. (Engineer); Gorbachev, A. F. (Engineer)

TITLE: Production of plated formed iron by electric-arc fusing and rolling

SOURCE: "Stal", no. 2, 1964, 149-152

TOPIC TAGS: plated iron, steel, electric arc fusing, profile iron, SVKh18N9T electrode, MS 1 steel, ADS 1000 2 welder, AN 26 flux, stainless steel, SVKh18N9T solder, rolling mill, 620 rolling mill, 450 rolling mill, 400 rolling mill

ABSTRACT: The authors describe a new technique for plating formed iron of different shapes. Several layers of stainless steel were fused onto the samples by the automatic multi-electrode welding method. The chemical composition of the metal plate proved satisfactory (Cr > 16%, Ni > 8%) when the MS-1 steel and 3-mm SVKh18N9T electrodes with AN-26 flux were used. The automatic welding assembly ADS-1000-2 was designed to produce simultaneous operation with three electrodes.

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ACCESSION NR: AP4014252

Samples were rolled in mills 620, 450, and 400. Tests showed a strong union of plate with the base metals. In structure, the first layer of the fused-on metal proved to be martensitic and the following layers austenitic. It was determined that the optimal thickness of the metal plate was 1-2 mm. The samples withstood tests for intergranular corrosion even when the angle of bending was 180 degrees. Orig. art. has: 2 tables, 4 figures, and 4 formulas.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 03Mar64

ENCL: 00

SUB CODE: ML

NO REF SOV: 001

OTHER: 000

Card 2/2

DONTSOV, P.M., kand.tekhn.nauk; PAPUSH, A.G., kand.tekhn.nauk; ARISTOV, V.S.;
kand.tekhn.nauk; MALAKHOVSKIY, L.G., inzh.; SHCHENBAK, M.L., inzh.;
DONTSOVA, A.Ya., inzh.; GORBACHEV, A.P., inzh.

Manufacture of clad rolled shapes by the method of electric arc
hard facing with subsequent rolling of the blank. Stal' 24 no.2:
149-152 F '64. (MIRA 17:3)

KOSHEVAYA, V.P.; PAPUSH, N.D.

Effectiveness of lyophilized plasma preserved for an extended period in the burn disease. Probl. gemat. i perel. krovi 9 no.9:54-57 S '64. (MIRA 18:7)

1. TSentral'nyy ordena Lenina institut gematologii i perelivaniya krovi (direktor - dotsent A.Ye.Kiselev) Ministerstva zdravookhraneniya, Moskva.

MOKEYEVA, R.A.; HUTBERG, R.A.; CHERNYAK, V.Ya.; MALLER, A.R.; PAPUSH, N.D.; SOBOLEVA, Yu.G.; RAKHMAYEVA, V.A.; KHUTSISHVILI, G.E.

Use of plasmapheresis in macroglobulinemic reticulosis; Waldenström's disease. Probl. gemat. i perel. krovi 9 no.12:33-40 D '64
(MIRA 18:1)

1. Gematologicheskaya klinika (zav. - prof. M.S. Dul'tsin) i laboratoriya fraktsionirovaniya belkov (zav. - prof. G. Ya. Rozenberg) TSentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi (direktor - dotsent A. Ye. Kiselev), Moskva.

KOZINER, V.E.; PAPUSH, N.D.

Plasma protein fractions following polyglucin substitution in
hemorrhage. Probl. gemat. i perel. krovi 10 no.2:37-44 F '64.
(MIRA 19:1)

1. "Sentral'nyy ordena Lenina institut hematologii i perelivariya
krovi (dir. - dotsent A.Ye. Kiselev) Ministerstva zdravookhraneniya
SSSR, Moskva.

ROZENBERG, G.Ya.; VISSARIONOVA, V.Ya.; MIKHAYLOVA, Yu.M.; PAPUSH, N.D.;
CHEFNYAK, V.Ya.

Isolation of properdin from bovine blood serum and study of its
properties. Biul. eksp. biol. i med. 60 no.11:45-48 N '65.
(MIRA 19:1)

1. Laboratoriya fraktsionirovaniya belkov krovi (zav. - prof.
G.Ya. Rozenberg) TSentral'nego ordena Lenina instituta gemato-
logii i perelivaniya krovi (direktor - dotsent A.Ye. Kiselev) i
kafedra infektsionnykh bolezney (zav. - prof. K.V. Bunin) I Moskov-
skogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.
Submitted October 11, 1963.

KISELEV, A. Ye, dotsent; RUTBERG, R.A.; MALLER, A.R.; RODINA, R.I.; PIPLUSH,
N.D.; URINSOI, R.M.; LAVROVA, O.P.; RAKHMAEVA, V.A.

Plasmapheresis as a way of increasing the resources of donor
plasma. Probl. gemat. i perel krovi no.12:3-8 D '64
(MIRA 18:1)

1. TSentral'nyy ordena Lenina institut hematologii i perelivariy
krovi (direktor - dotsent A. Ye. Kiselev) Ministerstva zdravookhra-
neniya SSSR, Moskva.

ACCESSION NR: AP4025098

S/0139/63/000/006/0150/0157

AUTHOR: Papush, Ye. G.

TITLE: The calculation of polaron ground state with approximation
 $\chi(r) = A \exp(-\sum \alpha_j x_j)$. Single axis crystal

SOURCE: IVUZ. Fizika, no. 6, 1963, 150-157

TOPIC TAGS: ionic crystal, principal axis, tensor-parameters, semiclassical polaron theory, wave function, ground state, variational method, alpha-quartz

ABSTRACT: The general ionic crystal of arbitrary crystallographic type is considered, with a principal axis x_1 for all tensor-parameters in the semiclassical polaron theory. The wave function of the conduction electron is given in terms of extremum and extremal functions. Thus,

$$J[\chi] = \sum \frac{\hbar^2}{2\mu} \int \left| \frac{\partial}{\partial x_i} \chi(r) \right|^2 dx - \frac{1}{2} \int C(r, e|\chi|^2) \Pi(r, e|\chi|^2) dx,$$

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ACCESSION NR: AP4025098

where the last term is approximated by the difference expression $K(n_1^2, n_2^2, n_3^2; \chi) - K(\epsilon_1, \epsilon_2, \epsilon_3; \chi)$. The ground state of the polaron is then calculated by minimizing the $J[\chi]$ functional by the variational method, using the approximation $\chi(r) = A \exp(-\sum \epsilon_k q_k^2)$. Numerical results are obtained in the case of single axis crystals, illustrated by an example using α -quartz. A simplified expression is also obtained for the difference expression above, thus,

$$K(\epsilon_1, \epsilon_2, \epsilon_3; \chi) = 2\pi e^2 \Omega \sum_{q \neq 0} \left(\frac{1}{q^2} - \frac{1}{\sum \epsilon_k q_k^2} \right) |F_q[\chi]|^2. \text{ "The author is grateful to S. I. Pekar for evaluating the work." Orig. art. has: 34 equations, 2 tables, and 1 figure.}$$

ASSOCIATION: Moskovskiy ordena Lenina energeticheskiy institut (Moscow Power Institute)

SUBMITTED: 09Jun62

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: PH

NO REF SOV: 005

OTHER: 000

Card 2/2

S/0139/64/000/002/0017/0019

ACCESSION NR: AP4036554

AUTHOR: Papush, Ye. G.

TITLE: Ground state of polaron at $\chi(r) = A(1 + \sqrt{\sum e_j^2 r_j^2} + 4\gamma \sum e_j^2 r_j^2) \exp(-\sqrt{\sum e_j^2 r_j^2})$.
(Single axis crystal case)

SOURCE: IVUZ. Fizika, no. 2, 1964, 17-19

TOPIC TAGS: ground state, polaron, crystal axis, minimum functional, Fourier coefficient, isotropic crystal, hydrogen atom, alpha quartz

ABSTRACT: For a crystal with common principal axes x_j , the ground state energy with extraneous electrons in semiclassical theory is given by means of the absolute minimum functional $J[\chi] = \sum \frac{h^2}{2p_j} \int \left| \frac{\partial}{\partial x_j} \chi(r) \right|^2 dr - \frac{e^2 \Omega^2}{4\pi^2} \int \left(\frac{1}{E_n q_j^2} - \frac{1}{E_s q_j^2} \right) |F_{n,s}[\chi]|^2 dr$.The potential χ is given by the approximation $\chi(r) = A(1 + ar + 4\gamma a^2 r^2) \exp(-ar)$, suitable for a dielectric isotropic crystal and $F_{n,s}$ represents the Fourier coefficients of $|\chi(r)|^2$. The minimization conditions for J are determined and an expression is obtained for the ground state energy of the polaron,

Card 1/2

PAPUSH, Ye.G.

Derivation of the fundamental equations of the theory of polarons.
Izv. vys. ucheb. zav.; fiz. no.4:88-94 '59. (MIRA 13:3)

1.Dnepropetrovskiy institut inzhenerov zheleznodorozhnogo transporta.
(Electrons)

PAPUSH, Ye.G.

Calculating the ground state of polaron F_{z1} and F_{z2} centers
in a uniaxial crystal. Izv. vys. ucheb. zav.; fiz. no.4:
164-167 '64 (MIRA 17:8)

1. Moskovskiy energeticheskij institut.

Pa. Util., Ya. G.

1. Moskovskiy energet. bankov. institut.

L 6/19-55	EWT(1)/EBC(b)-2/T IJP(c)/AS(mp)-2	ASD(a)-5/ESD(t)/RADM(t)	
ACCESSION NR:	AP4048688	S/0139/64/000/004/0184/0190	5
AUTHOR:	Papush, Ye. G.		
TITLE:	Calculation of the lower p-states of an electron in the polaron E_{z1} center of a uniaxial crystal		
SOURCE:	IVUZ. Fizika, no. 4, 1964, 184-190		
TOPIC TAGS:	polaron, anisotropy, crystal, uniaxial crystal		
Abstract: The initial formulas for this calculation are derived in an approximation of the semiclassical polaron theory for the case of anisotropic crystals in which all the tensor-parameters of the theory			

ASSOCIATION: Moskovskiy ordena Lenina energeticheskiy Institut (Moscow Power Engineering Institute)

Card 1/2

I-8419-65
ACCESSION NR: AP4048888

SUBMITTED: 10Jun63

ENCL: 00

SUB CODE: SS

NO REF SOV: 004

OTHER: 000

JPRS

Card 2/2

PAPUSH, Ye.G.

Functionals in the semiclassical polaron theory of
F and F' centers for anisotropic crystals. Izv. vys.
ucheb. zav; fiz. no.1:52-57 '63. (MIRA 16:5)

1. Moskovskiy ordena Lenina energeticheskiy institut.
(Color centers) (Functional analysis)

MALYSHEV, V.A., inzh; GORBACHEV, A.F., inzh; PAPUSH, A.G., kand. tekhn. nauk

Reducing metal consumption in casting large ingots for forging.
Metallurg 3 no.11:16-18 N '58. (MIRA 11:11)
(Steel ingots)

Родионов, 19.12.57

DANIKHELKA, A., doktor, inzh.; MIKHAYLOV, O.A., kand. tekhn. nauk; GONCHARENKO, N.I.; KLIMASENKO, L.S.; OYKS, G.N., prof., doktor tekhn. nauk; SEMENENKO, P.P.; MOROZOV, A.E., prof., doktor tekhn. nauk; GLINKOV, M.A., prof., doktor tekhn. nauk; KAZANTSEV, I.G., prof., doktor tekhn. nauk; KOCHO, V.S., prof., doktor tekhn. nauk; KURSH, Sh., kand. tekhn. nauk; MOROZOVSKIY, L.I., kand. tekhn. nauk; GURSKIY, G.V.; SPERANSKIY, V.G.; NOVIK, L.M., kand. tekhn. nauk, starshiy nauchnyy sotrudnik; SHMYEROV, Ya.A., kand. tekhn. nauk; PAPUSH, A.G., kand. tekhn. nauk; MAZOV, V.P.; SAMARIN, A.M.

Discussions. Bul. TSNIIGHM no. 18/19:17-35 '57. (MIRA 11:4)

1. Glavnyy staleplavil'shchik Ministerstva metallurgicheskoy promyshlennosti i rudnikov Chekhoslovatskoy respubliki (for Danikhelka). 2. Direktor TSentral'nogo instituta informatsii chernoy metallurgii (for Mikhaylov). 3. Direktor Ukrainskogo instituta metallov (for Goncharenko). 4. Glavnyy staleplavil'shchik Kuznetskogo metallurgicheskogo kombinata (for Klimasenko). 5. Zaveduyushchiy kafedroy metallurgii stali Moskovskogo instituta stali (for Oyks). 6. Zamsstitel' glavnogo inzhenera zavoda im. Serova (for Semenenko). 7. Zaveduyushchiy kafedroy metallurgii stali Chelyabinskogo politekhnicheskogo instituta (for Morozov). 8. Zaveduyushchiy kafedroy metallurgicheskikh pechey Moskovskogo instituta stali (for Glinkov). 9. Zaveduyushchiy kafedroy metallurgii stali Zhdanovskogo metallurgicheskogo instituta (for Kazantsev). 10. Zaveduyushchiy kafedroy metallurgii stali Kiyevskogo politekhnicheskogo instituta (for Kocho).

(Continued on next card)

DANIKHNEKA, A.—(continued) Card 2.

11. Nachal'nik tekhnicheskogo otdela Ministerstva chernoy metal-lurgii Vengerskoy Narodnoy Respubliki (for Mekosh). 12. Zame-stitel' direktora Novotul'skogo metallurgicheskogo zavoda (for Gurskiy). 13. Nachal'nik tekhnicheskogo otdela zavoda "Dnepro-spetsstal'" (for Speranskiy). 14. Institut metallurgii im. Baykova AN SSSR (for Novik). 15. Nachal'nik staleplavil'noy laboratorii Ukrainskogo instituta metallov (for Shneyerov). 16. Nachal'nik laboratorii po nepreryvnoy razlivke stali Zhdanovskogo filiala Tsentral'nogo nauchno-issledovatel'skogo instituta Ministerstva stroitel'noy promyshlennosti (for Papush). 17. Nachal'nik marte-novskogo tsekha zavoda "Zaporozhstal'" (for Mazov). 18. Zemestitel' direktora Instituta metallurgii im. Baykova AN SSSR, chlen-korrespondent AN SSSR (for Samarin).

(Steel--Metallurgy)

SOV/130-58-11-7/16

AUTHORS: Malyshev, V.A., and Gorbachev, A.F., Engineers, and
Papush, A.G., Candidate of Technical Sciences

TITLE: Reduction of Metal Consumption in Casting Forging Ingots
(Umen'sheniye rashkhoda metalla pri otlivke krupnykh
kuznechnykh slitkov)

PERIODICAL: Metallurg, 1958, Nr 11, pp 16 - 18 (USSR)

ABSTRACT: In 1955 electric heating of hot-tops of large carbon and alloy steel ingots was advantageously adopted at the im. Il'icha (im. Il'ich) works. In 1957 the filling of hot tops was increased but further advantage was not obtained. The insulation of the hot top was improved by increasing the thickness of the refractory from 40 to 160 mm (Fig 1), the effectiveness of this being shown with ingots of nominal weights 38 and 54 tonnes of 60KhG and 55Kh steels. A third ingot of nominal weight 35.2 tonnes of type 55 steel was cast with the thickest refractory in but without electric heating of the hot top. The authors give details of these ingots (table) and show sulphur prints of the smaller ingots (Fig 2). Study of these has shown that in all the ingots the pipe, porosity and crude segregation were above the body of the ingot.

Card 1/2

Reduction of Metal Consumption in Casting Forging Ingots
SOV/130-58-11-7/16
Four further ingots were cast with electrical hot top
heating: no effect of the changed hot-top configuration
on stripping was observed. Joint tests with the Zhdanovs-
kiy metallurgical institute showed that the quality of
the metal had not suffered through the considerable
reduction in the hot top volume.
There are 2 figures and 1 table.

Card 2/2

ROZENBERG, G. YA, PAJUSH, N. D.

Glucose

Mechanism of glucose action on the proteins of blood plasma and serum. Biokhimiia
17 no. 3, May-June 1952.

Monthly List of Russian Accessions, Library of Congress, November 19 2. ENCLAD. I. P.D.

ROZENBERG, G.Ya.; PAPUSH, N.D.

Mechanism of action of glucose on plasma and serum proteins. Biokhimia,
(CIML 25:1)
Moskva 17 no.3:329-335 May-June 1952.

L. Laboratory for Fractionation of Blood Proteins of the Central Institute
of Hematology and Blood Transfusion of the Ministry of Public Health USSR,
Moscow.

DUL'TSIN, M.S., professor; LORIYE, Yu.I.; DANILOVA, L.A.; PAPUSH, H.D.

Clinical aspects of diffuse myelomatosis. Probl.gemat. i perel.
krovi 1 no.2:14-21 Mr-Ap '56. (MIRA 10:1)

1. Iz TSentral'nogo ordena Lenina instituta hematologii i perelivaniya krovi (dir. chlen-korrespondent AMN SSSR prof. A.A.Bagdasarov)
Ministerstva zdravookhraneniya SSSR.
(MYELOMA, PLASMA CELL, case reports)

ROZENBERG, G. YA.; FAYUGH, H. D.; TIKHOMOVA, A. A.

Blood-Plasma

Some physicochemical properties of pure albumin and γ -globulin obtained from human blood plasma. Biokhimiia 17 no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1958, Uncl.
2

ROZENBERG, G. YA., PAPLISH, N. D., TIKHONOVA, A. A.

Proteins

Some physicochemical properties of pure albumin and γ -globulin obtained from human blood plasma. Biokhimiia 17 no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1953, Unclassified

ROZENBERG, G. YA., PAPUSH, N. D.

Blood

Mechanism of glucose action on the proteins of blood plasma and serum.

Biokhimiia 17 no. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

ROZENBERG, G. Ya.; PAPUSH, N. D.; TIKHONOVA, A. A.

Proteins

Some physicochemical properties of pure albumin and γ -globulin obtained from human blood plasma. Biokhimiia 17 No. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 ~~1953~~, Uncl.

PAPUSH, N. D.

PA 23610

USSR/Medicine - Hematology, Blood Transfusion Jul/Aug 52

"Some Physicochemical Properties of Pure
Albumin and Gamma-Globulin Preparations Ob-
tained From Human Blood Plasma," G. Ya. Rozen-
berg, N. D. Papush, A. A. Tikhonova, Lab of
Blood Proteins Fractionation, Central Inst of
Hematology and Blood Transfusion, Moscow

"Biokhimiya" Vol 17, No 4, pp 409-413

The characteristics of albumin and gamma-
globulin produced on an industrial basis from

236T10

donor blood at the Moscow Inst im I. Mechnikov
were studied by making electrophoretic measure-
ments, detg the rate of sedimentation,
measuring the diffusion constants and vis-
cosity, etc. The results permitted the con-
clusion that the preps in question are pure
and do not contain admixtures of extraneous
proteins. The mol wt values differ from 69,000
and 156,000 (the values given in the liter-
ature) by only \pm 5%.

236T10

PAPUSH, S. V.

"Studying the Distribution of Integral Curves of a System of Ordinary Differential Equations in the Vicinity of an Isolated Singular Point With the Aid of the Graphical Method." Sub 21 Feb 51, Sci Res Inst of Mechanics and Mathematics, Moscow, USSR. Lenin State University V. V. Lomonosov.

Dissertation presented for science and engineering degree in Moscow 2 May 1951.
SO: Sum. No. 420, o Par 51.

PAPUSH, P.N.

SUBJECT USSR/MATHEMATICS/Differential equations CARD 1/2 PG -401
 AUTHOR PAPUS P.N.:
 TITLE Investigation of the situation of integral curves which fill up
 a domain containing a singular point.
 PERIODICAL Mat.Sbornik, n. Ser. 38, 337-358 (1956)
 reviewed 11/1956

Let $\dot{x} = \varphi(x)$, x, φ n-vectors, $\varphi(0) = 0$, $\varphi \in C^2$ in a certain neighborhood U of 0 except perhaps at 0 itself; assume that a positive definite function $V \in C^2$ exists in U , $V(0) = 0$, $\partial V / \partial x \neq 0$ except at 0 and that the manifolds $V = \varepsilon$ for small ε are homeomorphic to $(n-1)$ -spheres (the reviewer was unable to see the role played by this last assumption). Let $F_1 = dV/dt - (\partial V / \partial x) \cdot \varphi$, $F_2 = dF_1/dt = d^2V/dt^2 - (\partial F_1 / \partial x) \cdot \varphi$. A solution L_p of the system (passing through P when $t = 0$) is (i) a ray, (ii) an elliptic curve or (iii) a saddle-like curve relatively to V if (i) either for $t \rightarrow +\infty$ or for $t \rightarrow -\infty$ (but not for both) $V \rightarrow 0$ on L_p and L_p leaves U when $t \rightarrow -\infty$ or $t \rightarrow +\infty$ respectively, V varying monotonically on L_p ; (ii) both for $t \rightarrow \pm\infty$, $V \rightarrow 0$ and V has exactly one maximum on L_p ; (iii) both for $t \rightarrow \pm\infty$, L_p leaves any neighborhood $U_1 \subset U$ and V has exactly one minimum on L_p . Any arcwise connected component G of the set where $F_1 \neq 0$ such that 0 belongs to the boundary of G is called

PAPUSH, P.N. (Moskva)

Study of the distribution of integral curves packed in a domain
with one singular point. Mat.sbor. 28 no.3:337-358 Mr '56.
(Differential equations) (Curves on surfaces) (MIRA 9:6)

PAPUSH, P.N. (Moskva)

Study of the distribution of integral curves packed in a domain
with one singular point. Mat.sbor. 28 no.3:337-358 Mr '56.
(Differential equations) (Curves on surfaces) (MLRA 9:6)

PAPUSH, P. N.

USSR Mathematics - Nonlinear Equa- July/Aug 52
tions, Limit Cycles

"Finding the Regular Semistable Limit Cycles,"
P. N. Papush

"Uspekhi Matemat Nauk" Vol VII, No 4 (50), pp 165-
168

A curve l^* is called a regular limit cycle or a given differential eq $dy/dx = f(x,y) = Q(x,y)/P(x,y)$ (a) if this curve satisfies the given differential eq, (b) if in the transition to curvilinear coordinates defined by this curve a differential eq $dn/ds = F(s,n)$ is obtained such that $F(s,n)$ preserves a

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const sign in each of the half-neighborhoods $n > 0$ and $n < 0$, and (c) if this curve l^* is closed. This cycle is called semistable if there exists a neighborhood $U(l^*)$ of curve l^* , at all points of which the inequality $F(s,n) \cdot F(s,-n) > 0$, only if $n \neq 0$.

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CIA-RDP86-00513R001239210006-7

ZAFUSH, P. N.

USSR (600)

Curves, Plane

Determination of regular semi-stable maximal cycles Usp. mat. nauk 7, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239210006-7"

S/139/59/000/05/001/026
EO32/R114

AUTHOR: Papush, Ye.G.

TITLE: On the Derivation of the Fundamental Equations of the Theory of Polaron. II.

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1959, Nr 5, pp 3-5 (USSR)

ABSTRACT: In Pekar's monograph (Ref 1) instead of Eqs (1) to (3) (cf Part I of the present paper; Nr 4 of the present journal) use is made of Eqs (15) to (17) as the basic quantum mechanical equations corresponding to two-sided adiabatic approximation. In the latter equations \vec{r} and r_g are fixed parameters. The quantity $W_l(r)$ was interpreted in Ref 1 as the total (internal) energy U of the whole system, assuming that the nuclei of the ions and the surplus electron are fixed at the lattice sites r_g and the point \vec{r} respectively. In subsequent discussion it was looked upon as the potential energy of the surplus electron in the crystal under the assumption that the nuclei are fixed at the point r_g . The quantity $\Delta W_l(\vec{r}, r_g)$ denotes the change in the above energy of the surplus electron due to a displacement and

Card
1/2

PAPUSH, Ye. G.,

Ye. G. Papush (Dnepropetrovsk Institute of Railway Traffic Engineers)

"The Foundations of the Theory of Polarons"

Report presented at a Conference on Solid Dielectrics and Semiconductors,
Tomsk Polytechnical Inst., 3-8 Feb. 58.
(Elektrichestvo, '58, No. 7, 83-86)

PAPUSH, Ye.G.

Functionals in the semiclassical polaron theory for crystals of
arbitrary crystallographic type. Izv.vys.ucheb.zav.; fiz.
no.4:63-70 '61. (MIRA 14:10)

1. Moskovskiy energeticheskiy institut.
(Functional analysis) (Crystals)

PAPUSH, Ye.G.

On the derivation of the basic equations of the theory of
polarons. Part 2. Izv.vys.ucheb.zav.; fiz. no.5:3-5
'59. (MIRA 13:4)

1. Dnepropetrovskiy institut inzhenerov zheleznodorozhnogo transporta.
(Electrons)

PAPUSHEV, E.

"Results From Testing KCX-2*1 and Kz2-2*1 Mowing Machines."

p. 22 (Kooperativno Zemedelie, No. 6, June 1958, Sofia, Bulgaria)

Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 11,
Nov. 1958